

## WATER-BASED DRILLING FLUIDS USING LATEX ADDITIVES

### Abstract of the Disclosure

5 A water-based drilling fluid having a polymer latex capable of providing a  
deformable latex film on at least a portion of a subterranean formation has been  
discovered to provide reduced drilling fluid pressure invasion when used to drill in  
shale formations for hydrocarbon recovery operations. A precipitating agent such  
as a silicate or an aluminum complex (e.g. sodium aluminate) is preferably used in  
conjunction with the polymer. Typically, the water present contains a salt to form a  
10 brine, often to saturation, although the invention may be practiced with fresh water.  
If a salt is employed, it is often helpful to additionally employ a surfactant, such as a  
betaine, for example.